

1. (Currently Amended) A battery charger configured to provide a temperature-regulated charging of a battery, comprising:

a processing arrangement operable to:

- (a) obtain a temperature data associated with the battery; and
- (b) apply a particular amount of a charge to the battery based on the temperature data of the battery, wherein the processing arrangement is configured to maintain the battery at a predetermined threshold temperature during at least a majority of an entire time period in which the charge is applied to the battery, ~~wherein, at least when the charge is initially applied to the battery, the particular amount of the charge is 10A or greater.~~

2. (Previously Presented) The battery charger according to claim 1, wherein the processing arrangement is further operable to:

- (c) obtain a voltage data associated with the battery; and
- (d) apply a charge to the battery, the charge being determined based on the voltage data of the battery.

3. (Original) The battery charger according to claim 1, wherein the charge is applied to the battery until charging of the battery is substantially completed.

4. (Previously Presented) The battery charger according to claim 1, wherein the processing arrangement is further operable to reading a voltage of the battery to determine if charging of the battery is substantially complete.

5. (Previously Presented) The battery charger according to claim 1, wherein the processing arrangement is further operable to:

- (c) measure a first voltage across a terminal of the battery;
- (d) measure a second voltage across the terminals of the battery after step (c);
- (e) determine a difference between the first voltage and the second voltage; and
- (f) repeat procedures (c)-(e) until charging of the battery is substantially complete.

6. (Original) The battery charger according to claim 1, further comprising at least one temperature sensor mounted on or in the battery, wherein the temperature sensor measures the temperature of the battery.

7. (Original) The battery charger according to claim 1, further comprising at least one temperature sensor, wherein the temperature sensor measures an ambient temperature.

8. (Previously Presented) The battery charger according to claim 1, wherein the charge applied to the battery allows a maximum charge intensity during charging of the battery as a function of the temperature data without damaging the battery.

9. (Previously Presented) The battery charger according to claim 1, wherein the processing arrangement regulates the particular amount of the charge supplied to the battery as a function of the temperature data.

Claim 10 (Canceled).

11. (Original) The battery charger according to claim 1, wherein the charge applied to the battery is based on one of voltage measurements and temperature measurements of the battery.

12. (Previously Presented) The battery charger according to claim 1, wherein the amount of the charge provided to the battery is capable of being increased based on a change in the temperature data of the battery.

13. (Previously Presented) The battery charger according to claim 1, wherein the battery comprises at least one of a nickel metal hydride battery, a nickel cadmium battery, a lead acid battery or a lithium ion battery.

14. (Previously Presented) The battery charger according to claim 1, wherein the processing arrangement is further operable to cool the battery using a cooling arrangement.

15. (Currently Amended) A process for providing a temperature-regulated charging of a battery, comprising:

- (a) obtaining a temperature data associated with the battery; and
- (b) applying a particular amount of a charge to the battery based on the temperature data of the battery, wherein the processing arrangement is configured to maintain the battery at a predetermined threshold temperature during at least a majority of an entire time period in which the charge is applied to the battery, ~~wherein, at least when the charge is initially applied to the battery, the particular amount of the charge is 10A or greater.~~

16. (Previously Presented) The process according to claim 15, further comprising:

- (c) obtaining a voltage data associated with the battery; and
- (d) applying a charge to the battery, the charge being determined based on the voltage data of the battery.

17. (Original) The process according to claim 15, wherein the charge is applied to the battery until charging of the battery is substantially completed.

18. (Previously Presented) The process according to claim 15, further comprising using a voltage of the battery to determine if charging of the battery is substantially complete.

19. (Previously Presented) The process according to claim 15, further comprising:

- (c) measuring a first voltage across a terminal of the battery;
- (d) measuring a second voltage across the terminals of the battery after step (c);
- (e) determining a difference between the first voltage and the second voltage;

and

- (f) repeating steps (c)-(e) until charging of the battery is substantially complete.

20. (Previously Presented) The process according to claim 15, wherein at least one temperature sensor is mounted on or in the battery, wherein the temperature sensor measures the temperature of the battery.

21. (Previously Presented) The process according to claim 15, wherein at least one temperature sensor, wherein the temperature sensor measures an ambient temperature.

22. (Previously Presented) The process according to claim 15, wherein the charge applied to the battery allows a maximum charge intensity during charging of the battery as a function of the temperature data without damaging the battery.

23. (Previously Presented) The process according to claim 15, wherein the temperature-regulated charging is controlled by a processing arrangement, and wherein the processing

arrangement regulates the particular amount of the charge supplied to the battery as a function of the temperature data.

Claim 24 (Canceled).

25. (Original) The process according to claim 15, wherein the charge applied to the battery is based on one of voltage measurements and temperature measurements of the battery.

26. (Previously Presented) The process according to claim 15, wherein the amount of the charge provided to the battery is capable of being increased based on a change in the temperature data of the battery.

27. (Previously Presented) The process according to claim 15, wherein the battery comprises at least one of a nickel metal hydride battery, a nickel cadmium battery, a lead acid battery or a lithium ion battery.

28. (Previously Presented) The process according to claim 15, further comprising cooling the battery using a cooling arrangement.

29. (Currently Amended) A storage medium for providing a temperature-regulated charging of a battery, comprising:

    a software arrangement capable of configuring a processing arrangement accessing the storage medium to:

- (a) obtain a temperature data associated with the battery; and
- (b) apply a particular amount of a charge to the battery based on the temperature data of the battery, wherein the processing arrangement is configured to maintain the battery at a predetermined threshold temperature during at least a majority of an entire time period in which the charge is applied to the battery, ~~wherein, at least when the charge is initially applied to the battery, the particular amount of the charge is 10A or greater.~~

30. (Previously Presented) The storage medium according to claim 29, wherein the software arrangement is capable of further configuring the processing arrangement to:

- (c) obtain a voltage data associated with the battery; and
- (d) apply a charge to the battery, the charge being determined based on the voltage data of the battery.

31. (Original) The storage medium according to claim 29, wherein the charge is applied to the battery until charging of the battery is substantially completed.

32. (Previously Presented) The storage medium according to claim 29, wherein the software arrangement is capable of further configuring the processing arrangement to use a voltage of the battery to determine if charging of the battery is substantially complete.

33. (Previously Presented) The storage medium according to claim 29, wherein the software arrangement is capable of further configuring the processing arrangement to:

- (c) measure a first voltage across a terminal of the battery;
- (d) measure a second voltage across the terminals of the battery after step (c);
- (e) determine a difference between the first voltage and the second voltage; and
- (f) repeat procedures (c)-(e) until charging of the battery is substantially complete.

34. (Original) The storage medium according to claim 29, further comprising at least one temperature sensor mounted on or in the battery, wherein the temperature sensor measures the temperature of the battery.

35. (Original) The storage medium according to claim 29, further comprising at least one temperature sensor, wherein the temperature sensor measures an ambient temperature.

36. (Original) The storage medium according to claim 29, wherein the charge applied to the battery allows a maximum charge intensity during charging of the battery.

37. (Previously Presented) The storage medium according to claim 29, wherein the temperature-regulated charging is controlled by the processing arrangement, and wherein



the processing arrangement regulates the particular amount of the charge supplied to the battery as a function of the temperature data.

Claim 38 (Canceled).

39. (Original) The storage medium according to claim 29, wherein the charge applied to the battery is based on one of voltage measurements and temperature measurements of the battery.

40. (Previously Presented) The storage medium according to claim 29, wherein the amount of the charge provided to the battery is capable of being increased based on a change in the temperature data of the battery.

41. (Previously Presented) The storage medium according to claim 29, wherein the battery comprises at least one of a nickel metal hydride battery, a nickel cadmium battery, a lead acid battery or a lithium ion battery.

42. (Previously Presented) The storage medium according to claim 29, wherein the software arrangement is capable of further configuring the processing arrangement to cool the battery using a cooling arrangement.

43. (Previously Presented) The battery charger according to claim 1, wherein the time period is the period from a start of the charge applied to the battery and ends approximately when a peak charge of the battery has occurred.

44. (Previously Presented) The process according to claim 15, wherein the time period is the period from a start of the charge applied to the battery and ends approximately when a peak charge of the battery has occurred.

45. (Previously Presented) The storage medium according to claim 29, wherein the time period is the period from a start of the charge applied to the battery and ends approximately when a peak charge of the battery has occurred.

46. (Previously Presented) The battery charger according to claim 1, wherein the charge applied to the battery is a non-trickle charge.

47. (Previously Presented) The process according to claim 15, wherein the charge applied to the battery is a non-trickle charge.

48. (Previously Presented) The storage medium according to claim 29, wherein the charge applied to the battery is a non-trickle charge.

Claims 49-51 (Canceled)

52. (Previously Presented) The battery charger according to claim 1, wherein the processing arrangement is operable to regulate the particular amount of the charge to be at least one of gradually increased or gradually reduced during the time period.

53. (Previously Presented) The process according to claim 15, further comprises regulating the particular amount of the charge to be at least one of gradually increased or gradually reduced during the time period.

54. (Previously Presented) The storage medium according to claim 29, wherein the software arrangement is adapted to configure the processing arrangement to regulate the particular amount of the charge to be at least one of gradually increased or gradually reduced during the time period.

55. (New) The battery charger according to claim 1, wherein, at least when the charge is initially applied to the battery, the particular amount of the charge is 10A or greater.

56. (New) The process according to claim 15, wherein, at least when the charge is initially applied to the battery, the particular amount of the charge is 10A or greater.

57. (New) The storage medium according to claim 29, wherein, at least when the charge is initially applied to the battery, the particular amount of the charge is 10A or greater.

58. (New) The battery charger according to claim 14, wherein the cooling arrangement includes at least one of a fan or a water-circulation system operable based on at least one of real-time data, historical data or other data utilized to compute an appropriate charging value of the charge.

59. (New) The process according to claim 28, wherein the cooling arrangement includes at least one of a fan or a water-circulation system operable based on at least one of real-time data, historical data or other data utilized to compute an appropriate charging value of the charge.

60. (New) The storage medium according to claim 42, wherein the cooling arrangement includes at least one of a fan or a water-circulation system operable based on at least one of real-time data, historical data or other data utilized to compute an appropriate charging value of the charge.